REMARKS

Claims 1-9, 11-13, and 15-28 are pending in the present application. In the Final Office Action mailed September 14, 2007, the Examiner rejected claims 3 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The Examiner next rejected claims 1, 12, and 16 under 35 U.S.C. §103(a) as being unpatentable over Ma (USP 6,016,057) in view of Weiss (US Pub. 2005/0165294). Claim 11 was rejected under 35 U.S.C. §103(a) as being unpatentable over Ma in view of Weiss, and further in view of Ahluwalia et al. (US Pub. 2005/0070785). Claims 2-9, 13, 15, and 17 were rejected under 35 U.S.C. §103(a) as being unpatentable over Ma in view of Weiss, and further in view of Haacke et al. (Magnetic Resonance Imaging, Haacke, E., et al., John Wiley and Sons, 1999). Claims 18-27 were rejected under 35 U.S.C. §103(a) as being unpatentable over Ma in view of Haacke et al. Claim 28 was rejected under 35 U.S.C. §103(a) as being unpatentable over Kassai et al. (US Pub. 2002/0188190) in view of Ahluwalia et al.

Finality of Office Action:

Before addressing the rejections in the Office Action mailed September 14, 2007, Applicant questions the premature of the finality of the Office Action and requests reconsideration thereof.

First, in Applicant's arguments filed August 16, 2007, Applicant argued that the Examiner failed to reject claim 27. Applicant explained that the Examiner only rejected claims 2-10, 13, 15, and 17-26 under 35 U.S.C. §103(a) as being unpatentable over Ma in view of Haacke. On page 2 of the current Office Action, the Examiner disagreed and stated that the rejection of claim 27 was included on page 14 of the prior Office Action. Applicant does not disagree that page 14 of the previous Office Action included a discussion of claims 26 and 27 together; however, claim 27 was never formally rejected under any art of record. In the current Office Action, the Examiner includes a rejection of claim 27 under §103(a) as being unpatentable over Ma in view of Haacke, which the previous Office Action lacked.

Second, as explained in the previous response, Applicants canceled claim 14 and incorporated the subject matter thereof into claim 1. Applicant then traversed the rejection of the subject matter of claim 14 by explaining how the art of record failed to teach or suggest that called for in the amended claim 1. The Examiner must have found Applicant's arguments persuasive since claim 1 was rejected over new art in the current Office Action. Applicant believes that the amendment to claim 1 in the previous response that incorporated the subject

matter of claim 14 did not present any subject matter to the Examiner that was not examined as set forth in the previous Office Action. That is, claim 1 merely incorporated the subject matter of claim 14. However, since the Examiner introduced a new ground of rejection in the current Office Action and made such action final, the finality is improper under MPEP §706.07(a) because the introduction of the new ground of rejection was not necessitated by Applicant's amendment.

Third, in the previous response, and with respect to claim 18, Applicant traversed the Examiner's conclusion that Ma discloses zero-filling of at least a portion of k-space in the slice direction. On page 2 of the current Office Action, there Examiner partially agreed and asserted that Haacke discloses zero-filling in 3D MRI imaging. Applicant is not addressing the veracity of the Examiner's assertion, yet; however, since the Examiner is presenting new arguments in the present Office Action with regard to the zero-filling, the current Office Action cannot be made final since Applicant has not had an opportunity to address the Examiner's assertion with respect to claim 18 in a non-final Office Action.

Accordingly, Applicant respectfully believes that finality of the present Office Action is improper and requests reconsideration thereof.

Rejection under §112:

On page 3 of the current Office Action, the Examiner stated that "the term 'full-fat-recovery-free' is vague and indefinite, because it could be interpreted to mean either fully fat suppressed MR data or MR data in which the data from fat has not fully recovered." Applicant agrees with the Examiner's interpretation. That is, being free of full fat recovery does mean either that data is fully fat suppressed or that fat has not fully recovered. Being not fully fat recovered includes being fully fat suppressed. Accordingly, both interpretations are encompassed by the phrase "full-fat-recovery-free". As such, Applicant does not believe that the term "full-fat-recovery-free" is either vague or indefinite.

Nevertheless, Applicant has amended claim 3 according to the Examiner's suggestion to call for fat-suppressed MR data since the Examiner believes that such improves clarity. Additionally, Applicant points out that the phrase "fat-suppressed" may also be interpreted to mean either that data is fully fat suppressed or that fat has not fully recovered.

Accordingly, Applicant requests withdrawal of the rejection of claim 3 under §112, second paragraph.

Rejections under §103(a):

Claims 1 and 28:

The Examiner rejected claim 1 as being unpatentable over Ma in view of Weiss. Applicant has amended claim 1 to incorporate the subject matter of claim 11. Applicant has canceled claim 11. The Examiner rejected claim 11, which was incorporated into claim 1, as being unpatentable over Ma in view of Weiss, and further in view of Ahluwalia. The Examiner also rejected claim 28 as being unpatentable over Kassai in view of Ahluwalia.

Ahluwalia was filed on September 5, 2003, and published on March 31, 2005. The present application was filed on July 20, 2004. Since the publication date of Ahluwalia is after the filing date of the present application, Ahluwalia qualifies as prior art under 35 U.S.C. §102(e). However, since the present application and Ahluwalia were, at the time the invention was made, owned by and/or subject to an obligation of assignment to the same entity, Ahluwalia cannot be cited in a rejection against the claimed invention under 35 U.S.C. §103(a). See MPEP §706.02(l). The Ahluwalia application was assigned to GENERAL ELECTRIC COMPANY and recorded at Reel/Frame # 016212/0534. The current application is also assigned to GENERAL ELECTRIC COMPANY and recorded at Reel/Frame #014875/0607. Applicant, therefore, requests withdrawal of the rejection of claims 1 and 28 under 35 U.S.C. §103(a).

Claims 18 and 23:

The Examiner rejected claims 18 and 23 as being unpatentable over Ma in view of Haacke. Applicant respectfully believes that the art of record fails to render claims 18 and 23 unpatentable.

As explained above, the Examiner, in the current Office Action, asserted that Haacke discloses zero-filling in 3D MRI imaging. In particular, the Examiner provided page 812 of Haacke for support of the "zero-filling of 3D data in the slice direction." *Office Action, supra at* 11. Applicant respectfully disagrees.

On page 812, Haacke discloses a pair of equations (26.20 and 26.21) where an object k-space signal is zero for certain values of $s(k_x, k_y)$. What a skilled in the art will recognize that equations 26.20 and 26.21 are shown with respect to 2D imaging.

Haacke does discuss 3D imaging. However, the discussion of 3D imaging relates to exacerbation of a problem of loss of small object visibility "where N_z voxels, each with unique thickness are reconstructed. . . ." *Id.* Haacke fails to teach or suggest zero-filling with regard to a third direction for 3D imaging or zero-filling in the slice direction.

Accordingly, Applicant believes that the Examiner has not satisfied the burden to show that in the art of record teaches each and every element of claims 18 and 23 or the claims that depend therefrom. Therefore, the Examiner has not satisfied the burden to show a *prima facie* case of obviousness. Accordingly, Applicant requests withdrawal of the rejections of claim 18, 23, and the claims depending therefrom.

Additionally, with respect to claim 18, the Examiner asserted obviousness "to modify the Ma/Weiss combination. . . ." *Office Action, supra at* 11. However, Weiss was not used to reject claim 18. Accordingly, a "Ma/Weiss combination" with regard to claim 18 is unclear.

Therefore, in light of at least the foregoing, Applicant respectfully believes that the present application is in condition for allowance. As a result, Applicant respectfully requests timely issuance of a Notice of Allowance for claims 1-9, 12-13, and 15-28.

Applicant appreciates the Examiner's consideration of these Amendments and Remarks and cordially invites the Examiner to call the undersigned, should the Examiner consider any matters unresolved.

Respectfully submitted,

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General Authorization and Extension of Time

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 07-0845. Should no proper payment be enclosed herewith, as by credit card authorization being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 07-0845. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extensions under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 07-0845. Please consider this a general authorization to charge any fee that is due in this case, if not otherwise timely paid, to Deposit Account No. 07-0845.

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